into powder and sieved using a 250-mesh stainless steel screen to obtain the powder used.

Tin oxide based ceramic powder was prepared by blending raw powder in the ratio of 93 wt. % of SnO_2, 2 wt. % of TiO_2 and 5 wt. % of MnO. The blend was mixed and sintered at 1400° C. for 16 hours. The sintered body was then ground into powder and sieved using a 250-mesh stainless steel screen to obtain the powder used.

Beta-eucryptite ceramic powder was obtained by mixing lithium carbonate, alumina and high purity quartz sand into the composition of $Li_2O.Al_2O_3.2SiO_2$. The mixture was sintered at 1250° C. for 5 hours. The sintered body was then ground into powder and sieved using a 250-mesh stainless steel screen to obtain the powder used.

Mullite ceramic powder was prepared by blending aluminium oxide and high purity quartz sand into the composition of $3Al_2O_3$.$2SiO_2$. The blend was mixed and sintered at 1600° C. for 10 hours. The sintered body was then ground into powder and sieved using a 250-mesh stainless steel screen to obtain the powder as used.

As mentioned above, the low temperature sealing composition according to the present invention fulfills various properties and features required for the sealing materials to seal IC packages or display panels. The present composition is particularly suitable as the sealing material for sealing ceramic or glass containers containing temperature sensitive devices because it is sealable at a temperature of 400° C. or lower without load. In addition, the present sealing composition is readily produced from raw materials of the glass containing no highly toxic materials, which otherwise should be handled using special protective instrument.

What is claimed is:

1. A low temperature sealing composition consisting of glass powder, said glass powder consisting essentially of 45.0 to 85.0 wt. % of PbO, 1.0 to 11.0 wt. % of B_2O_3, 1.0 to 45.0 wt. % of Bi_2O_3, 0.2 to 10.0 wt. % of Fe_2O_3, 0 to 15.0 wt. % of ZnO, 0 to 5.0 wt. % of CuO, 0 to 5.0 wt. % of V_2O_5, 0 to 3.0 wt. % of SnO_2, 0 to 5.0 wt. % of SiO_2 plus Al_2O_3, 0 to 7.0 wt. % of BaO, 0 to 5.0 wt. % of TiO_2, 0 to 5.0 wt. % of ZrO_2 and 0 to 6.0 wt. % of F_2.

2. A low temperature sealing composition as claimed in claim **1**, said glass powder consisting essentially of 50.0 to 83.0 wt. % of PbO, 2.0 to 10.0 wt. % of B_2O_3, 1.2 to 35.0 wt. % of Bi_2O_3, 0.2 to 9.0 wt. % of Fe_2O_3, 0 to 13.0 wt. % of ZnO, 0 to 4.0 wt. % of CuO, 0 to 3.0 wt. % of V_2O_5, 0 to 2.0 wt. % of SnO_2, 0 to 3.0 wt. % of SiO_2 plus Al_2O_3, 0 to 5.0 wt. % of BaO, 0 to 1.0 wt. % of TiO_2, 0 to 1.0 wt. % of ZrO_2 and 0 to 6.0 wt. % of F_2.

3. A low temperature sealing composition comprising 45 vol. % to 80 vol. % of glass powder and 20 vol. % to 55 vol. % of refractory filler powder, said glass powder consisting essentially of 45.0 to 85.0 wt. % of PbO, 1.0 to 11.0 wt. % of B_2O_3, 1.0 to 45.0 wt. % of Bi_2O_3, 0.2 to 10.0 wt. % of Fe_2O_3, 0 to 15.0 wt. % of ZnO, 0 to 5.0 wt. % of CuO, 0 to 5.0 wt. % of V_2O_5, 0 to 3.0 wt. % of SnO_2, 0 to 5.0 wt. % of SiO_2 plus Al_2O_3, 0 to 7.0 wt. % of BaO, 0 to 5.0 wt. % of TiO_2, 0 to 5.0 wt. % of ZrO_2 and 0 to 6.0 wt. % of F_2.

4. A low temperature sealing composition as claimed in claim **3**, said glass powder consisting essentially of 50.0 to 83.0 wt. % of PbO, 2.0 to 10.0 wt. % of B_2O_3, 1.2 to 35.0 wt. % of Bi_2O_3, 0.2 to 9.0 wt. % of Fe_2O_3, 0 to 13.0 wt. % of ZnO, 0 to 4.0 wt. % of CuO, 0 to 3.0 wt. % of V_2O_5, 0 to 2.0 wt. % of SnO_2, 0 to 3.0 wt. % of SiO_2 plus Al_2O_3, 0 to 5.0 wt. % of BaO, 0 to 1.0 wt. % of TiO_2, 0 to 1.0 wt. % of ZrO_2 and 0 to 6.0 wt. % of F_2.

5. A low temperature sealing composition as claimed in claim **3**, said refractory filler powder comprising at least one element which is selected from the group consisting of lead titanate based ceramic powder, willemite based ceramic powder, cordierite ceramic powder, zircon based ceramic powder, tin oxide based ceramic powder, β-eucryptite ceramic powder, and mullite ceramic powder.

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